

Work Order ID 82548 - 2

Monday, April 02, 2012 3:45:06 PM

82548

Page 1

Item ID: D3690-1

Revision ID:

Item Name: Glareshield

Start Date: 4/2/2012 Start Qty: 1.00

Required Date: 4/17/2012 Req'd Qty: 1.00

Reference:

Accept

N900040100

Setup Start *NS1*

Stop *NS2*

Cust Item ID:

Customer:

Approvals:

Process Plan:

QC:

Date: 2012.2 Tooling:

Date: SPC (Y/N):

Date:

Date:

Run Start *NR1*

Stop *NR2*

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID Tool # Plan Code Accept Qty Reject Qty Reject Number Insp. Stamp

Draw Nbr

Revision Nbr

D3690

Rev C

100

100

Thermoform

Thermoforming Machine

HAND FINISHING THERMOFORMING

0.00

Memo

0.00

Set up machine frame and program as per Folio FTA 019

110

110

Thermoform

Thermoforming Machine

HAND FINISHING THERMOFORMING

0.00

Memo

0.00

Cut Blanks to fit frame size 69.5" X 35.5"

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 82548

82548

Page 2

Monday, April 02, 2012 3:45:06 PM

Item ID: D3690-1

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Glareshield

Start Date: 4/2/2012 Start Qty: 2.00

2

Cust Item ID:

Required Date: 4/17/2012 Req'd Qty: 2.00

2

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID Tool # Plan Code Accept Qty Reject Qty Reject Number Insp. Stamp

115

0.00

115

Dry Material

HandThermo

Memo

0.00

Hand Finishing Thermoforming

Dry Sheet as per QSI022 POLYCARBONATE

Temp: _____

Time IN: _____

Time OUT: _____

120

0.00

120

THERMOFORMING MACHINE

Thermoform

Memo

0.00

Thermoforming Machine

Thermoform as per Dwg. D3690-Hand Folio FTA 019 Dwg. Rev.

Folio Rev. _____

130

0.00

130

QC2- Inspect parts off machine FAI/FAI

QC

Memo

0.00

Quality Control

Visually inspect for proper formation of each part

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Work Order ID 82548***82548***

Page 3

Item ID: D3690-1

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Glareshield

Start Date: 4/2/2012 Start Qty: 2.00

2

Cust Item ID:

Required Date: 4/17/2012 Req'd Qty: 2.00

2

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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140

QC 8- Inspect parts - second check

0.00

140

QC

Memo

0.00

Quality Control

150

HAND FINISHING THERMOFORMING

0.00

150

Thermoform

Memo

0.00

Thermoforming Machine

Trim to Finished Dimensions as per dwg D3690 using DT9036 / DT9043 template

160

QC 2- Inspect parts off machine FAI/FAIB

0.00

160

QC

Memo

0.00

Quality Control

Check dimensions to ensure conformity to drawing tolerances.

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Monday, April 02, 2012 3:45:06 PM

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Page 4

Item ID: D3690-1

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Gilareshield

Start Date: 4/2/2012 Start Qty: 2.00 *2*

Cust Item ID:

Required Date: 4/17/2012 Req'd Qty: 2.00 *2*

Customer:

Reference:

Approvals: Process Plan: Date:

Tooling: Date:

Run Start *NR1*

QC: Date:

SPC (Y/N): Date:

Stop *NR2*

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID Tool # Plan Code Accept Qty Reject Qty Reject Number Insp. Stamp

170

QC5- Inspect part completeness to step on W/O

0.00

170

QC

Memo

0.00

Quality Control

180

Identify as per dwg & Stock Location: GA

0.00

180

Packaging

Memo

0.00

Packaging

190

QC21- Final Inspection - Work Order Release

0.00

190

QC

Memo

0.00

Quality Control

12/5/10

MR 12-05-10

8/2/05/10

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Monday, April 02, 2012 3:44:18 PM

Page 1

Work Order ID: 82548

82548

Parent Item: D3690-1

D3690-1

Parent Item Name: Glareshield

Start Date: 4/2/2012

Required Date: 4/17/2012

Start Qty: 2.00

Required Qty: 2.00

Comments:

IPP Rev A New Issue 08/04/28 DL verified by:DD
 IPP Rev:B 08-07-14 revB as per dwg DD verified by:ec
 IPP Rev:C 08-10-07 revC as per dwg DD verified by:EC
 Add Step 115 Dry Material 10/04/21 DL
 Ipp Rev.D

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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MLF XS.093-F6006-02

Purchased

No

sf

447.3475

52.64632

MI FXS 093-F6006-02

**

GE PLASTICS LEXAN SHEET

Location

Loc Qty

Loc Code

therm

447.3474879

106751

97.9159079

110877

349.43158

14
12/1/11

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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DART AEROSPACE LTD		Work Order:	82548
Description: Glareshield		Part Number:	D3690-1
Inspection Dwg: D3690	Rev: C	Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST
THERMOFORMING SECTION

Description	Accept	Reject	Method of Inspection	Comments
Shape Definition	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Free of visual flaws (bumps, cracks, voids, etc.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>		

Measured by:		Date:	
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TRIMMING SECTION

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
2.20	+/-0.030	2.20	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Visual	
3.55	+/-0.030	3.55	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Visual	
0.040	Min	0.040	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Visual	

Measured by:		Date:	
Audited by:	B	Date:	12/09/12
Preliminary Approval:		Date:	

Rev	Date	Change	Revised by	Approved
A	08.09.12	New Issue	KJ/DL	
B	10.11.17	Dwg Rev updated	KJ	

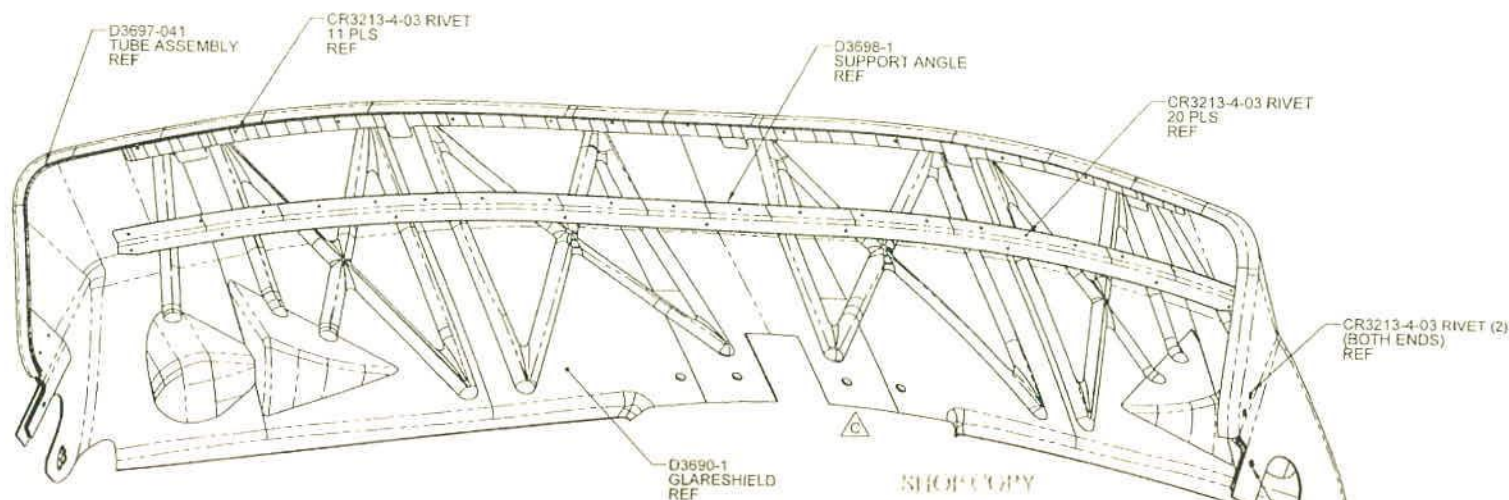
W/O:		WORK ORDER CHANGES					
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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NOTE: Date & initial all entries



SHOP COPY
RETURN TO
PERMANENT
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WARRANTY NOTICE
WORK ORDER
NO. 82548 MWS
12/04/02

RELEASED
12/04/02

PART LIST

QTY -041	PART NUMBER	DESCRIPTION
X	D3690-041	GLARESHIELD ASSEMBLY
1	D3690-1	GLARESHIELD
1	D3697-041	TUBE ASSEMBLY
1	D3698-1	SUPPORT ANGLE
2	AN960JD3	WASHER (OR NAS1149DN332J)
2	MS20426AD3-5	RIVET
35	CR3213-4-03	RIVET

D3690-041 GLARESHIELD ASSEMBLY

C	SHEET 1 PL MS20426AD3-5 RIVET WAS MS20426AD3-4 CR3213-4-03 RIVET WAS MS20470AD3-4 WASHER QTY WAS 6 (VIEWS UPDATED ACCORDINGLY) RIVETS ON SHEET 1 CHANGED TO REF QTY. RIVETS ON SHEET 2 CHANGED TO "HARD" CALLOUTS. SHADING REMOVED FROM ALL VIEWS FOR CLARITY.	AJS	08.09.02
D	ADD FINISH COAT & 1.0 TYP. SHEET 2 ZONES A,B & C,S; ADD MIN THICKNESS. SHEET 3 ZONE A,B	RF	08.06.24
A	NEW ISSUE	RF	08.05.26
REV	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF	DRAWING NO. D3690	
CHECKED	RF	REV. C	
MFG. APPR.	RF	SHEET 1 OF 3	
APPROVED	RF	TITLE	
DE APPR.	RF	SCALE	
DATE	08.09.02	GLARESHIELD ASSEMBLY	
NTS			

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

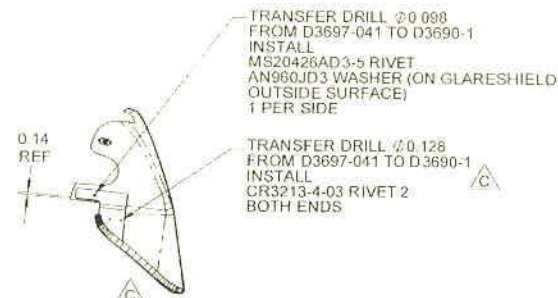
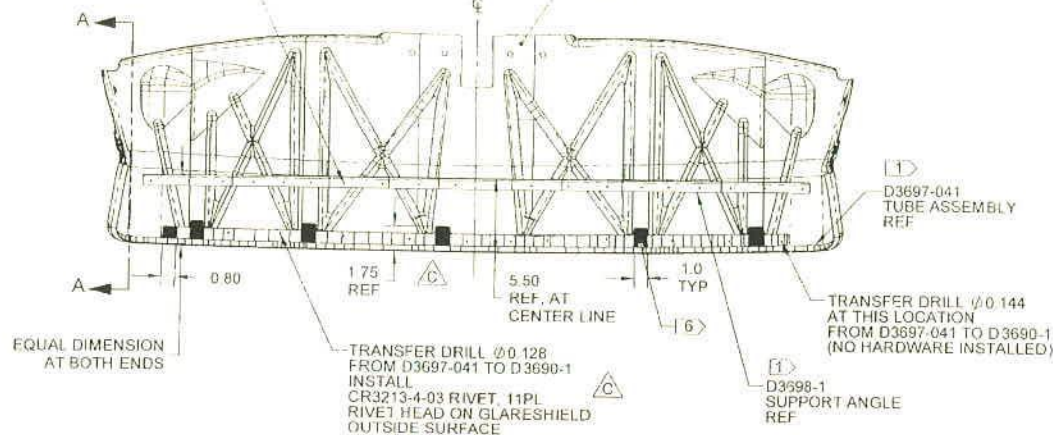
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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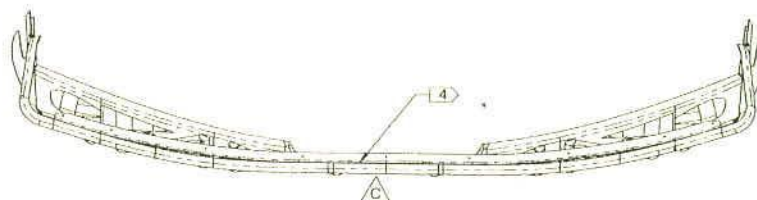
NOTE: Date & initial all entries

TRANSFER DRILL $\varnothing 0.128$
FROM D3698-1 TO D3690-1
INSTALL
CR3213-4-03 RIVET, 20 PL
RIVET HEAD ON GLARESHIELD
OUTSIDE SURFACE

D3690-1
GLARESHIELD
REF



SECTION A-A



D3690-041 GLARESHIELD ASSEMBLY

NOTES:

- 1) CENTER D3697-041 AND D3698-1 ON TO D3690-1
- 2) FINISH: PAINT D3690-041 ASSY FLAT BLACK USING BASF GLASURIT 22 LINE CODE SFA39.50 PER DART QSI 005 4.2
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) IDENTIFICATION: ETCH WITH DART P/N D3690-041 & B/N ON INSIDE OF PART
- 5) WEIGHT: 2.98 lbs
- 6) MASK HATCHED AREAS (6 PLS) ON INSIDE OF THE PART PRIOR TO PAINTING

RELEASED
08-09-16

DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED		DRAWING NO. D3690	REV. C
MFG. APPR.		SHEET 2 OF 3	
APPROVED		TITLE	SCALE
DE APPR.		GLARESHIELD ASSEMBLY	NTS
DATE	08.09.02	COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS UNCLASSIFIED AND CONFIDENTIALITY IS NOT CLAIMED. THE DATA IS FOR INFORMATION ONLY. NOT TO BE RELEASED TO ANY FOREIGN GOVERNMENT OR INDIVIDUAL WITHOUT WRITTEN PERMISSION OF DART AEROSPACE LTD.	

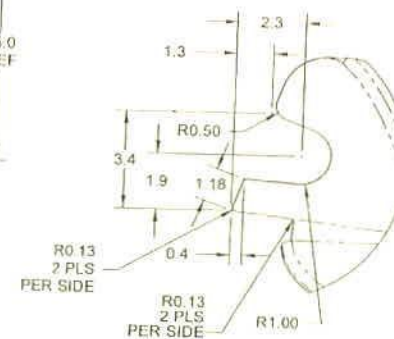
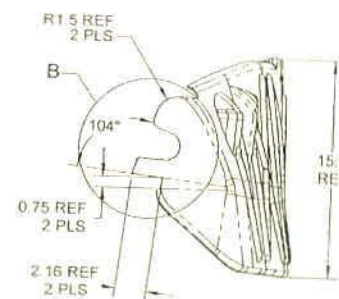
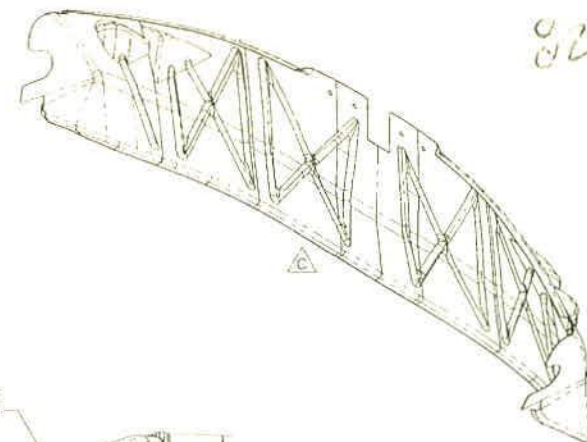
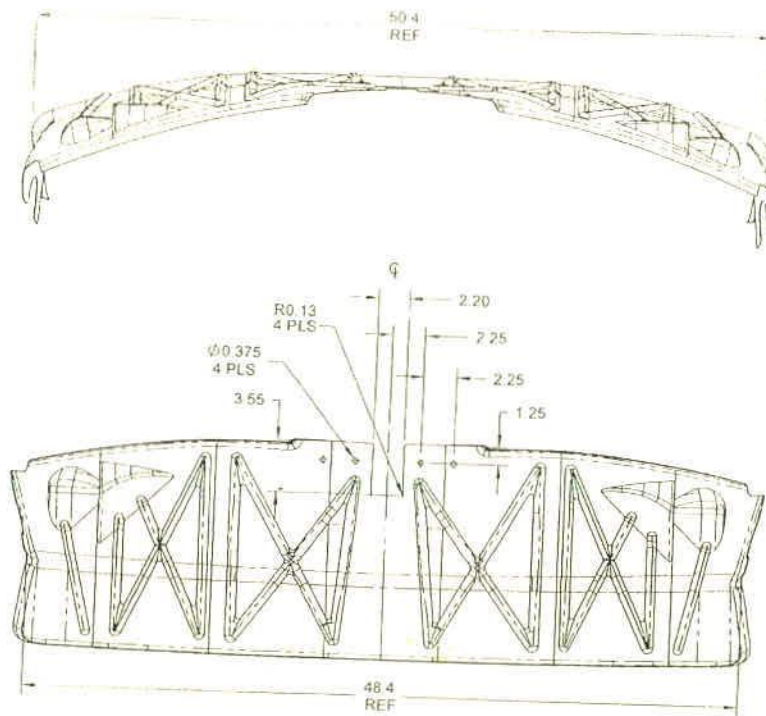
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D3690-1 GLARESHIELD

NOTES:

- 1) MATERIAL: F6006 SUEDE/POLISHED 701 BLACK FLAT LEXAN SHEET 0.093 THICK (REF DART SPEC MLEXS.093-F6006-02)
- 2) TOOLING: THERMOFORM PER MOLD DT9010 PER QSI 022 TRIM PER MOLD SCRIBE LINES EXCEPT WHERE NOTED
- 3) FINISH: NONE
- 4) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 7) IDENTIFICATION: NONE
- 8) WEIGHT: 2.5 lbs
- 9) MINIMUM THICKNESS AFTER FORMING IS 0.040

RELEASED
06.09.02

DETAIL B
SCALE 2X
THIS VIEW FOR REFERENCE ONLY

DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED		DRAWING NO.	REV. C
MFG APPR.		D3690	SHEET 3 OF 3
APPROVED		TITLE	SCALE
DE APPR.		GLARESHIELD ASSEMBLY	NTS
DATE	08.09.02	COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS THE PROPERTY OF DART AEROSPACE LTD. IT IS TO BE USED ONLY FOR THE PURPOSES FOR WHICH IT WAS ISSUED AND NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.	

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